

associating and storing object information related to the virtual object with operation information specifying the content of an operation of the mobile member or another apparatus; and

when it is determined according to the stored object information that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, the mobile member or the another apparatus is operated based on the stored operation information corresponding to the virtual object.

20. (Amended) A service providing method for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object, comprising:

associating and storing object information related to the virtual object with service information specifying the content of service; and

when it is determined according to the stored object information that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, providing the service corresponding to the virtual object based on the stored service information;

performing an input related to at least one of generation, deletion, and update of the object information; and

at least one of generating, deleting, and updating the object information based on the content of the performed input.

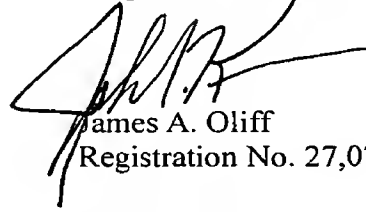
REMARKS

Claims 1-20 are pending in this application. By this Supplemental Preliminary Amendment, the Abstract, specification and claims 1-20 are amended. No new matter is added.

The attached Appendix includes marked-up copies of the substitute specification (37 C.F.R. §1.125(b)(2))" and claim (37 C.F.R. §1.121(c)(1)(ii)).

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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Attachments:

Substitute Abstract
Substitute specification along w/mark-up copy
showing the changes made thereto
Appendix

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ABSTRACT OF THE DISCLOSURE

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The invention provides a service providing system which allows the user to easily receive service, which allows the user to receive not only information providing service but a variety of services, and which can flexibly handle a change in condition. The invention can include a virtual-object management apparatus that associates object information related to the shape and the location of a virtual object with service information and stores them, and sends the object information and the service information stored in a virtual-object management database to a digital camera in response to a transmission request sent from the digital camera. When the digital camera determines, from the obtained location information and the received object information, that the digital camera is disposed in the inside area of the virtual object identified by the shape and location of the virtual object, it can execute an action corresponding to the virtual object, according to the received service information.

APPENDIX

Changes to Abstract:

The following is a marked-up version of the amended Abstract.

ABSTRACT OF THE DISCLOSURE

~~To provide~~ The invention provides a service providing system which allows the user to easily receive service, which allows the user to receive not only information providing service but a variety of ~~services~~ services, and which can flexibly handle a change in condition. The invention can include a A-virtual-object management apparatus ~~100~~ that associates object information related to the shape and the location of a virtual object with service information and stores them, and sends the object information and the service information stored in a virtual-object management ~~DB 42~~ database to a digital camera ~~300~~ in response to a transmission request sent from the digital camera ~~300~~. When the digital camera ~~300~~ determines, from the obtained location information and the received object information, that the digital camera ~~300~~ is disposed in the inside area of the virtual object identified by the shape and location of the virtual object, it can executes an action corresponding to the virtual object, according to the received service information.

Changes to Claims:

Claims 1-20 are amended.

The following are marked-up versions of the amended claims:

1. (Amended) A service providing system for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object, comprising:

a storage means for associating device that associates object information related to ~~the~~ a shape and location of the virtual object with service information specifying a service content, and ~~for storing them~~ that stores the object and service information; and

a location-information acquisition means for obtaining device that obtains location information used for identifying ~~the~~ a location of the mobile member,

wherein, when it is determined according to the location information obtained by the location-information acquisition ~~means~~ device and the object information stored in the storage ~~means~~ device that the mobile member is disposed in ~~the~~ an inside area of the virtual object identified by the shape and location of the virtual object, service corresponding to the virtual object is provided according to the service information stored in the storage ~~means~~ device.

2. (Amended) A service providing system according to Claim 1,

~~wherein~~ the mobile member and a management terminal ~~for managing that~~ manages the virtual object ~~are being~~ connected in a communication-allowed manner;

the mobile member ~~has~~ includes the location-information acquisition ~~means~~ device, and sends the location information obtained by the location-information acquisition ~~means~~ device to the management terminal; and

the management terminal ~~has~~ having the storage ~~means~~ device, and when the management terminal receives the location information, ~~it~~ the management terminal determines, according to the received location information and the object information stored in the storage ~~means~~ device, whether the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object.

3. (Amended) A service providing system according to Claim 1,

~~wherein~~ the mobile member and a management terminal ~~for managing that~~ manages the virtual object ~~are being~~ connected in a communication-allowed manner;

the management terminal ~~has~~includes the storage ~~means~~device, and sends the object information stored in the storage ~~means~~device to the mobile member; and

the mobile member ~~has~~includes the location-information acquisition ~~means~~device, and when the mobile member receives the object information, ~~it~~the mobile member determines, according to the location information obtained by the location-information acquisition ~~means~~device and the received object information, whether the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object.

4. (Twice Amended) A service providing system according to Claim 2, wherein, when the result of the determination indicates that the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object, the management terminal provides service corresponding to the virtual object ~~according to~~based on the service information stored in the storage ~~means~~device.

5. (Twice Amended) A service providing system according to Claim 2, ~~wherein~~ the management terminal ~~sends~~sending the service information stored in the storage ~~means~~device to the mobile member, and

when the result of the determination indicates that the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object, the mobile member provides service corresponding to the virtual object ~~according to~~based on the received service information.

6. (Twice Amended) A service providing system according to Claim 2, ~~wherein~~ the management terminal further ~~comprises~~comprising:
~~an input means for performing device that performs~~ an input related to at least one of generation, deletion, ~~or~~and update of the object information; and

~~_____an object-information processing means for generating, deleting, or updating device that generates, deletes or updates the object information according to the content of the input performed by the input meansdevice.~~

7. (Twice Amended) A service providing system according to Claim 1,
~~wherein the service information is being~~ operation information specifying the
a content of an operation of the mobile member or another apparatus, and
when it is determined that the mobile member is disposed in the inside area of
the virtual object identified by the shape and location of the virtual object, the mobile
member or the another apparatus is operated ~~according to~~ based on the operation information
corresponding to the virtual object, stored in the storage ~~means~~device.

8. (Twice Amended) A service providing system according to Claim 1,
~~wherein the service information specifies the~~ specifying a content of service in
which media information related to at least one of characters, images, ~~or and~~ video is
provided for the mobile member, and

when it is determined that the mobile member is disposed in the inside area of
the virtual object identified by the shape and location of the virtual object, the media
information is provided for the mobile member ~~according to~~ based on the service information
corresponding to the virtual object, stored in the storage ~~means~~device.

9. (Twice Amended) A service providing system according to Claim 1,
~~wherein the service information specifies the~~ specifying a content of service in
which notice information related to at least one of a notice ~~or and~~ guidance information
related to a guidance is provided for the mobile member, and

when it is determined that the mobile member is disposed in the inside area of
the virtual object identified by the shape and location of the virtual object, the notice
information and the guidance information are provided for the mobile member ~~according to~~

based on the service information corresponding to the virtual object, stored in the storage ~~means~~device.

10. (Twice Amended) A service providing system according to Claim 1, ~~wherein~~ the mobile member ~~is being~~ a portable terminal.

11. (Amended) A service providing system for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object ~~according to~~ based on a positional relationship between a movable mobile member and the virtual object, comprising:

~~a storage means for associating device that associates~~ object information related to the virtual object with operation information specifying ~~the~~ a content of an operation of the mobile member or another apparatus, and ~~for storing them~~ that stores the object information and the operation information,

wherein, when it is determined, according to the object information stored in the storage ~~means~~device, that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, the mobile member or the another apparatus is operated ~~according to~~ based on the operation information corresponding to the virtual object, stored in the storage ~~means~~device.

12. (Amended) A service providing system for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object, comprising:

~~a storage means for associating device that associates~~ object information related to the virtual object with service information specifying the content of service, and ~~for storing them~~ that stores the object and service information,

wherein, when it is determined according to the object information stored in the storage ~~means-device~~ that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, the service corresponding to the virtual object is provided ~~according to~~ based on the service information stored in the storage ~~means-device~~; and

further comprising an input ~~means for performing device that performs~~ an input related to at least one of generation, deletion, ~~or and~~ update of the object information; and

an object-information processing ~~means for generating, deleting, or updating device that generates, deletes, or updates~~ the object information according to the content of the input performed by the input ~~means-device~~.

13. (Amended) A terminal connected to the mobile member used in a service providing system according to Claim 2 in a communication-allowed manner, comprising a storage ~~means-device~~,

wherein, when the terminal receives the location information, ~~it the terminal~~ determines, according to the received location information and the object information stored in the storage ~~means-device~~, whether the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object.

14. (Amended) A mobile member connected to the management terminal used in a service providing system according to Claim 3 in a communication-allowed manner, comprising a location-information acquisition ~~means-device~~,

wherein, when the mobile member receives the object information, ~~it the mobile member~~ determines, according to the location information obtained by the location-information acquisition ~~means-device~~ and the received object information, whether the

mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object.

15. (Amended) A service providing program for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object,

the program making a computer, which is capable of using a storage means for associating device that associates and stores object information related to the shape and location of the virtual object with service information specifying a service content ~~and for storing them~~, and a location-information acquisition means for obtaining device that obtains location information used for identifying the location of the mobile member, execute processing in which, when it is determined according to the location information obtained by the location-information acquisition ~~means device~~ and the object information stored in the storage ~~means device~~ that the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object, service corresponding to the virtual object is provided ~~according to~~ based on the service information stored in the storage ~~means device~~.

16. (Amended) A service providing program for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object,

the program making a computer, which is capable of using a storage means for associating device that associates and stores object information related to the virtual object with operation information specifying ~~the~~ a content of an operation of the mobile member or another apparatus, ~~and for storing them~~, execute processing in which, when it is determined

according to the object information stored in the storage ~~means~~device that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, the mobile member or the another apparatus is operated ~~according to~~based on the operation information corresponding to the virtual object, stored in the storage ~~means~~device.

17. (Amended) A service providing program for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object,

~~The~~the program making a computer, which is capable of using a storage ~~means for associating device that associates and stores~~ object information related to the virtual object with service information specifying the content of service, ~~and for storing them,~~ execute;

processing in which, when it is determined according to the object information stored in the storage ~~means~~device that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, the service corresponding to the virtual object is provided ~~according to~~based on the service information stored in the storage ~~means~~device, and

processing implemented as an input ~~means for performing device that performs~~ an input related to at least one of generation, deletion, ~~or and~~ update of the object information, and object-information processing ~~means for generating, deleting, or updating device that generates, deletes, or updates~~ the object information according to ~~the~~a content of the input performed by the input ~~means~~device.

18. (Amended) A service providing method for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object ~~according to~~based on a positional

relationship between a movable mobile member and the virtual object, comprising ~~the step of~~:

associating and storing object information related to the shape and location of the virtual object with service information specifying a service content ~~and storing them~~; and
obtaining location information used for identifying the location of the mobile member; and

when it is determined, according to the obtained location information and the stored object information, that the mobile member is disposed in the inside area of the virtual object identified by the shape and location of the virtual object, providing service corresponding to the virtual object according to the stored service information.

19. (Amended) A service providing method for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object, comprising ~~the step of~~:

associating and storing object information related to the virtual object with operation information specifying the content of an operation of the mobile member or another apparatus, ~~and storing them~~; and

when it is determined according to the stored object information that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, the mobile member or the another apparatus is operated ~~according to~~ based on the stored operation information corresponding to the virtual object.

20. (Amended) A service providing method for associating service with a virtual object, for disposing the virtual object in a virtual space associated with an actual space, and for providing service corresponding to the virtual object according to a positional relationship between a movable mobile member and the virtual object, comprising ~~the step of~~:

associating and storing object information related to the virtual object with service information specifying the content of service, ~~and storing them~~; and

when it is determined according to the stored object information that the positional relationship between the mobile member and the virtual object satisfies a predetermined condition, providing the service corresponding to the virtual object ~~according to~~ based on the stored service information; ~~and~~

~~further comprising the step of:~~

performing an input related to at least one of generation, deletion, ~~or~~ and update of the object information; and

at least one of generating, deleting, ~~or~~ and updating the object information ~~according to~~ based on the content of the performed input.